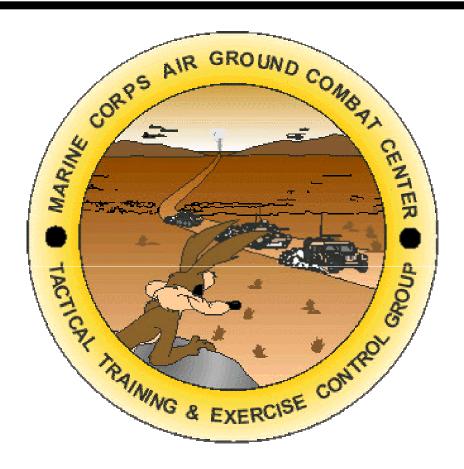
Helicopterborne Assault Course (HAC)



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Tactical Training and Exercise Control Group
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HELICOPTERBORNE ASSAULT COURSE (HAC)

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- (a) MCWP 3-11.4 Helicopterborne Operations
- (b) MCWP 3-24, Assault Support
- (c) NWP 3-22.5-UH-1, UH-1N Tactical Manual
- (d) MCWP 3-17.3, MAGTF Breaching Operations
- (e) NWP 3-22.5-CH-46E, CH-46 Tactical Manual
- (f) NWP 3-22.5-AH-1, AH-1 Tactical Manual
- (g) MCWP 3-11.1, Marine Infantry Small Unit Employment
- (h) MCWP 3-16.6, Supporting Arms Observer, Spotter, Controller
- (i) MCWP 3-16, TTP for FSC
- (j) MCRP 5-12A, Operational Terms & Graphics
- (k) MCWP 3-23.1 Close Air Support
- (l) MCWP 5-11.1, MAGTF Aviation planning
- (m) FM 71-101, Infantry, Airborne, and Air Assault Division Operations.
- (n) FM 7-30, Infantry, Airborne, and Air Assault Division Operations
- (o) MCWP 3-22.2 Suppression of Enemy Air Defense
- (p) TTECG/MAWTS-1, How to Plan a Helicopterborne Assault

Encl:

- (1) Helicopterborne Operations Planning Information
- (2) CTF Mojavia Operation Order
- (3) Administrative and Safety Overlay
- (4) Helicopter Door Gunnery Area
- (5) Helicopter Battle drill Area

1. LESSON TITLE. HELICOPTERBORNE ASSAULT COURSE (HAC)

- 2. **TRAINING OBJECTIVE.** Conduct a MAGTF level, company reinforced sized helicopterborne assault, defense in a blocking position, and emergency helicopterborne extraction in a mechanized, desert environment. References (a) through (p) provide detailed information on the planning and execution of helicopterborne operations. This letter and enclosures (1) through (5) provide detailed guidance on the HAC.
- a. TASK. Conduct a live-fire helicopterborne assault; deliberate defense of a blocking position; and emergency helicopterborne extract employing organic and attached direct fire weapons, attached mortars, escort aircraft, assault support aircraft, supporting artillery, and close air support. Additionally, conduct door gunnery from assault support aircraft, in-flight immediate action drills, helicopter CHERRY-PICKER (CASEVAC of simulated casualties), and helicopter resupply.
- b. CONDITION. The helicopterborne force will be task-organized with infantry, engineers, Dragons, Javelins, TOWs, heavy machine-guns, and mortars as is appropriate to the situation and plan. An artillery battalion will support the helicopterborne force, both rotary-wing and fixed-wing close air support, assault support aircraft, and escort aircraft. The helicopterborne force will operate within established safety regulations found in the CAX Safety Handout, and administrative guidance contained in this handout.
- c. PURPOSE. The HAC is intended to provide the MAGTF with the opportunity to develop the tactics, techniques, and procedures necessary to conduct daylight helicopterborne operations.

d. TRAINING STANDARDS

- (1) Plan, brief and execute the five basic plans of a helicopterborne operation in a low to medium threat, minimum communication environment. Emphasis should be placed on threat analysis, actions in the objective area, and actions along the route of flight.
 - (2) Conduct detailed planning and coordination between the MAGTF, ACE, GCE, and CSSE.
 - (3) Exercise door gunnery procedures within briefed assault sectors of fire.
 - (4) Conduct immediate action drills in response to in-flight threats.
 - (5) Conduct a deliberate helicopterborne attack.
- (6) Provide escort in a terrain flight (TERF) environment, emphasizing the tactical employment of ordnance around assault aircraft.
- (7) Provide FAC(A)/TAC(A) support emphasizing air control communications, air to ground communications, target analysis, and tactical airstrike requests using the DASC. Emphasis should be placed on observation, communications and control, effects, tactical patterns and the use of artillery/mortars for target marking/suppression.
- (8) Demonstrate helicopter evasive maneuvers based on the threat using escorts to provide suppressive fires to aid disengagement as necessary.
 - (9) Conduct helicopter CHERRY-PICKER (CASEVAC of simulated casualties).
 - (10) Conduct a deliberate defense in a blocking position.
- (11) Develop and execute integrated fire-support for a helicopterborne assault, deliberate defense, and helicopterborne extraction based on Intelligence Preparation of the Battlefield (IPB).
 - (12) Conduct helicopterborne resupply.
- (13) Employ organic and attached direct fire weapons, attached mortars, supporting artillery, and close air support.
 - (14) Conduct an emergency helicopterborne extraction of a company reinforced size unit.
 - (15) Develop and employ appropriate command, control, and communications.
 - (16) Conduct a command and control mission in support of the helicopterborne force.
 - (17) Exercise the timely flow of information and dissemination of intelligence.
 - (18) Employ deceptive measures.
- (19) Tactically insert and extract Reconnaissance and Surveillance teams using IPB products in order to develop routing and tactics of aircraft.

- (20) Develop and satisfy intelligence requirements to support continued planning and execution.
- e. ADDITIONAL TRAINING STANDARDS. These standards may be incorporated into the HAC at the discretion of the exercise force commander. Prior coordination with the TTECG aviation and maneuver sections is required to incorporate these standards in the HAC.
 - (1) Conduct Forward Arming and Refueling Point (FARP) operations.
- (2) Conduct Tactical Recovery of Aircraft and Personnel (TRAP) employing transport and escort aircraft.
- (3) Employ the High-speed Anti-Radiation Missile (HARM) for suppression of enemy air defenses (SEAD).

3. ADMINISTRATIVE INSTRUCTIONS

a. HAC Schedule

- (1) The HAC exercise is approximately 23 hours in length. It begins midday with assault door gunnery, immediate action to in route threat, tactical insert, and deliberate attack. During the attack, two separate helicopterborne CHERRY PICKER (simulated CASEVACs) missions may be conducted. The helicopterborne force will then transition to the defensive phase of the exercise. The helicopterborne force will have from late afternoon of the first day of the exercise through the early morning of the following day to prepare its defense. On the morning of the second day, the helicopterborne force's defenses will be attacked and the force will execute it's defensive plan. During the defense, the helicopterborne force will be required to conduct an emergency extract / withdrawal under pressure. ENDEX will be sounded after the last lift of personnel departs the objective area.
- (2) TTECG will publish the schedule for the HAC exercise prior to each CAX, taking into consideration the availability of daylight hours. The following is the general outline for the <u>HAC, Mobile</u> Assault Course (MAC), and LAR Screen Course (LARSC) training cycle.

CAX Day 7: a.m.: RSTA insert (in support of the HAC) window opens

CAX Day 8: a.m.: LARSC

HAC - Confirmation Brief / HAC CAST

p.m.: MAC - Mech Co/Tm #1 Movement to Contact/Breach

CAX Day 9: a.m.: MAC - Mech Co/Tm #1 Defense in Sector

RSTA insert (in support of the HAC) window closes

p.m.: HAC - Co #2 Insert/Deliberate Attack

CAX Day 10: a.m.: HAC - Co #2 Defense/Emergiency Extract

p.m.: MAC - Mech Co/Tm #3 Movement to Contact/Breach

HAC - Debrief

CAX Day 11: a.m.: MAC - Mech Co/Tm #3 Defense in Sector

p.m.: MAC - Tank Co/Tm Movement to Contact/Breach

- (3) Following completion of the insert and deliberate attack phase of the HAC, the helicopterborne force will make all weapons "cold and clear", and TTECG representatives will depart. The helicopterborne force is then free to prepare its defense; however, there will be no resumption of live-fire until TTECG returns the following morning. TTECG will return 2 hours prior to the enemy arriving in sector for the defensive phase of the HAC. This 2 hour period will allow the helicopterborne force an opportunity to fire and record targets for its fire support plan.
- b. **MAGTF Command Element.** The MAGTF Command Element must provide a fully functioning Combat Operations Center (COC) and Fire Support Coordination Center (FSCC) during the planning and execution of the HAC. It is recommended, at a minimum, some authority be delegated to the GCE and ACE to facilitate the training of their staffs. Additionally, if the MAGTF retains control of planning and execution, the GCE (infantry battalion) staff must assist the infantry company designated to conduct the mission by aiding in planning and coordination. The MAGTF commander, or if designated, the HTF commander, is responsible for the conduct of the confirmation brief and execution of the course.

c. Aviation Combat Element

- (1) Assault Support
 - (a) Sufficient lift assets must be provided to accomplish the following:
 - (1) Insert/extract a rifle company, reinforced (approximately 180 PAX) in three waves or less.
 - (2) Effect two separate CHERRY-PICKER (simulated CASEVACs) missions.
 - (3) Provide command and control platforms. Examples include: UH-1N with ARC-210, CH-46/53, DASC(A) configured C-130, etc..
 - (4) Conduct tactical helicopterborne resupply.
 - (5) Conduct tactical insert/extract of reconnaissance/scout sniper teams.
 - (b) The following general Assault Support schedule applies:

CAX Day 7 AM: Begin 48 hour window for TACTICAL insertion of

recon/scout sniper teams (insertion observed from objective to test

for aircraft or RSTA compromise)

CAX Day 9: AM: Conduct FARP operations (if coordinated as a training

event)

CAX Day 9: PM: Tactical insertion of rifle company reinforced

Two CHERRY-PICKERS
Command and control platform

CAX Day 9: Night: Tactical resupply

CAX Day 10: AM: Command and control platform

Emergency extract of rifle company reinforced Tactical extraction of recon/scout sniper teams

(2) Offensive Air Support

- (a) The ACE should plan to support the HAC with the following:
 - (1) A minimum of one section of escort aircraft, one separate section of rotary-wing CAS, two sections of fixed-wing CAS, and one FAC(A) sortie.
 - (2) The following general schedule for offensive air support applies:

CAX Day 9: PM: One section of escorts for the assault support

package

One separate section of rotary-wing CAS

Two sections of fixed-wing CAS

One sortie of FAC(A) One sortie of KC-130

CAX Day 10: AM: One section of escorts for the assault support

package

One separate section of rotary-wing CAS

Two sections of fixed-wing CAS

One sortie of FAC(A) One sortie of KC-130

- (b) All aviation will be fragged using JTARs/ASRs, as required.
- (c) Live ordnance is preferred. The following ordnance is recommended because of the close proximity of infantry to the enemy positions (aviation targets):

(1) Rotary-wing CAS: TOW/Hellfire missiles*

Rockets 20mm guns

(2) Fixed-wing[#] CAS: Rockets

20/25mm guns

Mk 82s

Ordnance in excess of Mk-82 is not permitted in support of the HAC unless coordinated in advance with TTECG representatives.

(d) Plan HAs,MCAs,BPs, ACAs, and routes as required.

(3) Air Control

- (a) The ACE will man a functional TACC in order to manage Air Tasking Order (ATO).
- (b) The ACE will position and man a fully functional DASC to coordinate all air support.

^{*} Most target engagements will be conducted at ranges less than 2500m. Hellfire may be employed; however, because of the close ranges of the targets and proximity of infantry in the objective area, TOW is recommended.

- (c) CAS missions may be drawn from airborne alert, strip alert, or a combination of both.
- (d) The ACE must coordinate with the MAGTF command element and GCE to facilitate command, control, and communication for the helicopterborne force.

d. Combat Service Support Element

- (1) As directed by the MAGTF commander/mission commander, provide support, as required, to the ACE and GCE for the conduct of the HAC.
 - (2) Provide personnel and equipment to augment the PZ helicopter support team (HST).
 - (3) If required, provide personnel to augment the LZ HST.

e. Ground Combat Element

- (1) The infantry company element of the helicopterborne force should be task-organized for the HAC as follows:
 - (a) Organic infantry platoons.
 - (b) Company FiST to include:
 - (1) Artillery Forward Observer
 - (2) Forward Air Controller
 - (3) 81mm Mortar Forward Observer
 - (4) FiST Leader
 - (5) Appropriate radio operators
- (c) One attached Engineer Detachment, equipped with mines, demolitions, and obstacle construction material (recommend spread-loaded throughout the company).
- (d) One attached 81mm mortar section (recommend ammunition be spread-loaded throughout the company).
- (e) One attached, dismounted detachment of TOWs/heavy machine-guns in any combination of TOWs, M2s, or Mk19s. If the exercise force has the ability to externally load and transport vehicles, these systems may be vehicle mounted.
 - (f) One detachment of Dragons/Javelins
- (2) The helicopterborne force must have an independent task organization from the company preceding it on the MAC. In other words, companies may not share the mortar section, engineers, etc. of the company preceding them. There is no time in the schedule to cross-deck Marines between runs or to brief last-minute attachments between runs.
 - f. The TTECG Assault Support Representative (CY-14S) will attend the integrated AMC's brief. Key

players outside the ACE (i.e., MC, HUC, FiST leader, MAGTF S-2, MAGTF S-3, MAGTF S-6) should be present. Three copies of the integrated Air/Ground SmartPack will be provided to CY-14S. The Helicopterborne Unit Commander will brief any changes to the HAC plan, from those briefed in the confirmation brief, to the TTECG representative prior to departing the pick-up zone (PZ). The task force commander and Air Mission Commander (AMC) may, at the discretion of the exercise force commander/task force commander, participate in this brief. Their participation however, is not mandatory. The purpose of this brief is to familiarize TTECG representatives with any **last minute changes** to the helicopterborne force plan. It **is not** to be a full-scale issuance of an operations order or repeat of the previous days confirmation brief. The brief should cover the following, if not covered during the previous day's confirmation brief:

- (1) Task organization, to include number and type of assets in each subordinate element and personnel and weapons distribution within the force.
 - (2) Number and type of aircraft supporting the force.
 - (3) Actions in and organization of the PZ.
 - (4) Number of waves for the insertion, routes, and the insertion time line.
 - (5) Offensive indirect fire plan to include in-route and preparation fires.
- (6) Concept of command, control, and communications. Identify how fires will be cleared into the helo sector.
 - (7) Immediate action drills to be employed in the event of enroute threat.
 - (8) Primary and alternate LZ locations, formation for landing, and actions in the LZ.
 - (9) Offensive scheme of maneuver for the deliberate attack.
 - (10) Offensive indirect fire plan and CAS employment plan for the deliberate attack.
 - (11) Defensive scheme of maneuver.
 - (12) Defensive obstacle/barrier plan.
 - (13) Defensive indirect fire support plan and CAS employment plan.
 - (14) Reconnaissance and surveillance plan (in support of both offense and defense).
 - (15) Type and quantity of following ammunition:
 - (a) TOW missiles.
 - (b) Ammunition for heavy machine-guns.
 - (c) Confirmation that all Mk19 ammunition is DODIC B576 only.
 - (d) SMAWs, AT-4s and Dragons/Javelins, and their distribution within the unit.
 - (e) Aviation ordnance loads.

- (16) Frequencies/net IDs for MAGTF TAC, battalion TAC, company TAC, subordinate element TACs and all TAD frequencies to be used.
- (17) Visual signals, to include signals for shifting and ceasing fires, and the no communication plan.
- g. The helicopterborne force assembly area, PZ, and COC/FSCC will be located within the East Training Area.
- h. **If FARP operations are planned,** a FARP may be established within the East Training Area. Rearming operations may be conducted from a FARP but are confined to a location at NT934956. Arming azimuth will be 330 to 360 degrees magnetic. The artillery battery supporting the MAC is located in the vicinity of NH920940 with an azimuth of lay of approximately 6000 mils (337 degrees magnetic) oriented North Northwest into the Delta training area. Ingress/egress to/from the FARP must be completely deconflicted from this artillery battery. Coordination for ingress/egress must be coordinated with the MAGTF or infantry battalion FSCC.
- i. **Logistics training is an integral element of this exercise.** The helicopterborne force will rearm, refuel and conduct other necessary combat service support as required in the PZ. Tactical logistics will be conducted in the objective area following the offensive phase of the HAC.
- j. **Helicopter Landing Zones.** Due to the time constraints and to support required training objectives, LZs must be located in the objective area. The following is an inexhaustive list of grids for LZs that meet these requirements:

11SNU747186 11SNU756179 11SNU733171 11SNU740169 11SNU742177

- k. The company will be assessed cherrypickers during the offensive phase. The company will be required to execute helicopter cherrypickers missions.
- l. The HAC is one of several events integrated into the CAX scenario, also known as the "grand unified scenario," or GUS. The enemy situation will depend on mission success and BDA reports from previous events (e.g., LAR Screen Course); consequently, BDA from the HAC will impact the enemy situation for events that follow (e.g., MAC and FINEX). CTF Mojavia (TTECG) will provide MAGTF S-2 with daily intelligence summaries (DISUMs) that will reflect enemy movement, changes in his forces, and BDA achieved by the MAGTF and adjacent units. No additional information will be provided regarding the Samaran order of battle or enemy situation aside from what the MAGTF develops during its own internal collections process. It is the MAGTF's responsibility to answer other specific information requirements that impact HAC planning and execution.
- m. All movement into and out of the objective area for the helicopterborne force will be conducted by air (except actual CASEVACs determined best accomplished by vehicle). Specifically, vehicles are prohibited from driving to and/or from the objective area until ENDEX for the HAC is announced by TTECG. No administrative aviation missions may be flown in conjunction with the HAC except actual CASEVACs. All other missions will be flown in a tactical profile appropriate for the given enemy situation.

- n. **A minimum of one tactical helicopterborne re-supply sortie** will be conducted between the offensive and defensive phase of the HAC.
- o. Planning and execution of a TRAP may be conducted in conjunction with the HAC. Coordination must be made with the aviation and maneuver sections of the TTECG prior to the commencement of the LARSC/MAC/HAC cycle to facilitate accomplishment of this training objective. The focus of the HAC is the planning and execution of a helicopterborne assault, defense, and emergency extract. Executing a TRAP in conjunction with HAC is discouraged if it is determined conducting the TRAP will reduce assets available to accomplish the primary training objectives of the course. At a minimum, a TRAP will be planned for, regardless of whether or not it is to be executed. If desired by the exercise force commander, a mechanical TRAP within or near the LZ may also be conducted following the insert of the last wave.
- p. The exercise force has the authority to select helicopter approach and retirement routes as it deems appropriate based on the threat scenario. Although these routes are to be selected by the exercise force, two checkpoints must be over flown during the insert of the helicopterborne unit for the deliberate attack. Checkpoint 1 is the door gunnery range. Checkpoint 2 is the helicopter battle drill area. These locations follow and are depicted in enclosure (5):
- (1) <u>Check point 1</u>: NU859102, center grid for the HAC door gunnery area. This range will be over flown and used during each helicopter wave's approach leg. It will not be transited on the retirement leg of each wave or during the emergency extract following the defensive phase of the HAC. Paragraph seven, below, describes the limits of the door gunnery range.
- (2) <u>Check point 2</u>: NU799152, center grid for the corridor described by the following grid coordinates:
 - (a) Southwest boundary: NU789157 to NU799147.
 - (b) Northeast boundary: NU804152 to NU794162.
- (c) Transit this corridor from Southeast to Northwest entering from the vicinity of NU820133 (hill 3735).
- (d) This corridor will only be transited on the first wave of the insert for the deliberate attack. It will not be transited on subsequent waves of the insert or during the emergency extract the following day.
- q. The helicopterborne force will be extracted to HLZ Wilson (at Camp Wilson) upon completion of the defense/during the emergency extract. On day two of the HAC it is imperative that the route of flight for extract remain clear of the Delta training area as it will be in a hot status for firing of check rounds in preparation for the day three P.M. MAC run.
- r. **For purposes of planning in the scenario,** the Expeditionary Air Field (EAF) and the Expeditionary Support Base (ESB) (Camp Wilson) are located in the vicinity of the city of Twentynine Palms (34° 10'N 116° 03'W) to simulate the port and airfield of Mojavia.
- s. **The EXFOR will provide a working party** to conduct a police call, fill-in fighting positions, and remove obstacle/barrier material from the training area during the afternoon following the completion of the HAC. It is recommended that the working party stage with the road guards in the vicinity of the artillery batteries on day two of the HAC to be prepared for police call upon ENDEX.
 - t. At 1000 on CAX day 8 (the day prior to the HAC), the MAGTF will conduct its final

confirmation Brief for the HAC. The brief will be conducted in the CAST prior to the HAC CAST. All MAGTF elements will be present or represented.

- u. **Command posts** established in support of the exercise must be located in the vicinity of the PZ. The Exception is the artillery battalion FDC which may be established in the vicinity of the two batteries located at NU719125.
- v. **Debrief of the HAC** will be conducted by TTECG personnel in the CAST classroom at 1800 on day three of the LARSC/MAC/HAC cycle (CAX day-10). Exercise force personnel who must attend this debrief include, but are not limited to, the following: MAGTF command element personnel as designated by the MAGTF commander; the infantry battalion staff; the helicopterborne unit (company) chain of command to include attached element leaders; members of the artillery battalion staff as designated by the artillery battalion commander; ACE staff planners to include the AMC, EFL, AFL, FAC(A)s, TAC(A)s, ASC(A)s, and air crews; and, CSSE personnel as designated by the CSSE commander.

4. RECONNAISSANCE, SURVEILLANCE AND TARGET AQUISITION

- a. RSTA teams (to include ground recon teams, scout sniper teams, radio recon teams, and sensors) will be inserted into the objective area not earlier than 48 hours prior to L-hour. TTECG personnel will occupy known enemy positions during the tactical insertion of the RSTA teams. TTECG personnel, positioned on the objective, will attempt to observe helicopterborne insertions of RSTA teams. Varying degrees of compromise may be effected (if RSTA insertion is observed), to include: pursuit of a team over a length of time by an enemy security patrol and/or elimination of a team/aircraft if the aircraft can be observed within enemy air defense capabilities. Compromise of RSTA teams will be communicated from the TTECG representative to the RSTA team controller who will inform the RSTA team leader of the situation and provide guidance for appropriate action.
- b. RSTA team positions must remain South of the 25 Northing during the HAC. Reconnaissance Areas of Operation (RAOs) may be established by the exercise force, enabling the RSTA teams to have the ability to conduct movement to, and occupy additional hide sites for better observation of enemy positions. The RSTA team will keep the Exercise Force informed of its movements during the exercise. The exercise Force must consider weapon SDZs and indirect fire minimum safe distances when planning and executing RSTA RFAs or other restrictive Fire Support Coordination Measures (FSCM's). An additional safety restriction to RSTA positioning and maneuver during the exercise is in effect from 1000 through 1600 on training day 9 (day one of the HAC). During this time, no personnel may enter the area bounded by the 76E, 22N, 82E, and 15N. This area comprises the SDZ for weapons systems fired in the helicopterborne battle drill area during insert of the assault waves.
- c. RSTA team positions may be tactically relocated at the completion of the offensive phase of the HAC to support the defensive phase.
- d. Intelligence collection begins immediately and early in mission planning. As stated before, the enemy situation will evolve as Samarans move around the battlefield and the MAGTF and adjacent units achieve BDA throughout the various CAX events. As the information requirements of various HAC elements drive collections, the MAGTF will collect information on the Samaran order of battle (e.g., through UAV, ELINT, ATARS, etc) to support continued HAC planning. The MAGTF may insert RSTA elements to answer updated and new information requirements no earlier than 48 hours prior to L-Hour. However, no live fire is permitted before L-60 minutes.
- e. During the insert of the helicopterborne force, scout sniper teams, under the positive control of the helicopterborne force and TTECG (via the scout sniper controller), may engage targets in the vicinity of the

objective.

f. A maximum of four RSTA teams and one radio reconnaissance team may be employed in support of the helicopterborne force. Additional teams may be employed if coordinated in advance with CTF headquarters (TTECG).

5. ARTILLERY/FIRE SUPPORT

- a. The appropriate level FSCC will participate in the HAC in order to clear all fire missions. Positive clearance from the FSC is required for all fire missions except mortar fires deconflicted by appropriate FSCM's as stipulated in the CAX Safety Handout. **Silence is not consent**. All re-attacks for R/W CAS and F/W CAS must also be cleared by the FSC.
- b. There are no constructive fire missions for indirect fire agencies inside the established training areas for the HAC; however, due to ammunition limitations, representative rounds are permitted. Each firing unit will fire at least one round per fire-for-effect and one round for each adjustment requested by the observer. Fires requested for a specific duration must be represented by the firing of a minimum first and last round. When conducting SEAD missions, at a minimum, marking rounds and the first and last rounds of suppression will be fired to facilitate the timing of suppression and CAS.
- c. The helicopterborne force will receive a total of 20 minutes of M825 smoke in support of its deliberate attack and emergency extract. Due to ammunition limitations, this can be represented by one round to adjust height of burst, and a first and last round to represent the duration of fire. What M825 is not used for the offense will be carried over to the defensive phase and available for use.
- d. On CAX day 9 (day one of the HAC), three artillery batteries will support the exercise. One battery, positioned in the vicinity of the Delta training area, will provide fires to suppress an enroute threat. Plan to suppress this threat for each ingress wave of the helicopterborne force. These fires will be conducted as representative missions with only first and last rounds fired. Upon completion of the insertion, this battery is free to conduct dry-fire unit training in the Delta, South of the 03 Northing grid line, until it is required for the MAC supporting company three. It must be in position, ready to fire check rounds for the MAC by 1100 CAX day 10. This Battery will only be required to support the HAC insert.
- e. Two other batteries will support the HAC from the vicinity of NU729125, representing notional batteries located south of the line of contact in the CTF Mojavia overlay given to the MAGTF operations section. Normally, these batteries would support the helicopterborne force with RAP; however, HE, M825, WP, and illumination rounds will be fired with M4A2, White Bag to facilitate training in the use of these shells. The artillery batteries supporting the HAC from this location will be ready for check rounds by 1100 CAX day 9 (day one of the HAC).
- f. The artillery battalion FDC should deploy to the field to participate in the execution of the HAC and locate in the vicinity of the firing batteries at NU729125.
- g. The exercise force artillery battalion should be prepared to engage targets in the objective area during the execution of the HAC.
 - h. The artillery batteries supporting the HAC will not be expected to make survivability moves.

- a. Road guards will be posted as follows (each post is surrounded by a 500m NFA):
 - (1) Post 1: NT 898928
 - (2) Post 2: NU 919093
- (3) Post 3: NU 732113. Recommend that Post 3 include a safety vehicle and corpsman with communications to the RSO . This post must be operational from 0900 CAX day 9 to 1200 CAX day 10 (day one and two of the HAC).
 - (4) Post 4: NU 772047
- b. The exercise force is responsible for the safe conduct of all phases of the HAC. A Range Safety Officer (RSO)/Laser Range Safety Officer (LRSO), who can have no other tactical duties as part of the exercise force, will be appointed. The RSO/LRSO will maintain positive communications with range control (BEARMAT) on frequency 49.85 at all times. In addition, he will maintain an internal EXERCISE SAFETY NET on frequency 40.65. The RSO/LRSO will use the EXERCISE SAFETY NET to maintain positive communications with all road guards, firing agencies, and the MAGTF or battalion FSCC. The RSO/LRSO will establish, control, and monitor the EXERCISE SAFETY NET prior to and during the exercise, and until such time as the range is declared "cold" at exercise completion. If communications with BEARMAT are lost, the RSO/LRSO will immediately place all firing agencies into a CHECK FIRE status until communications with BEARMAT can be re-established. If communications with road guards, the MAGTF/battalion FSCC, or any firing agency is lost on the EXERCISE SAFETY NET, the RSO/LRSO will immediately place all firing agencies into a CHECK FIRING status until communications can be re-established. The RSO will position himself on OP CRAMPTON (NJ842030).
- c. It is strongly recommended that the same RSO be employed all four days of the LARSC/MAC/HAC cycle.
- d. The exercise force will ensure a range sweep is conducted prior to the ranges being placed in a "hot" status, and that the ranges are placed in a "hot" status not later than 120 minutes prior to L-Hour on the day of the HAC. The RSO must remember the additional training areas used during the HAC. The range sweep can be conducted by either helicopter or wheeled vehicle, but an aerial range sweep is preferred due to expediency.
 - e. Red pyrotechnics stop all fire and movement.
- f. No ground movement is authorized within the sensitive fuse area. The sensitive fuse area is bounded by the following grid coordinates: NU699222, NU729222, NU699192, NU729192. Ordnance spill over from the sensitive fuse area may occur. All personnel should remain alert for any unexploded ordnance (UXO) in the area. Troops should be reminded once again not to handle UXO.
- g. Enemy positions inside the objective area contain pyrotechnic devices called hostile fire mechanisms (HOFMAN), which can be harmful if approached. All personnel must remain a minimum of 25 feet from these devices.
- h. A NFA is located within the following: NU763158 East following the MSR inclusive to NU780160, South to NU780150, West to NU760150, North to NU760158. This NFA will be occupied during the air movement phase of the helicopterborne assault.

- i. Aircraft with external loads will not be required to react to enemy threats presented in route. Performance of evasive maneuvers is at the discretion of the aircrew as dictated by safety.
- j. No live fire may be conducted in support of the HAC until 60 minutes prior to L-Hour on CAX day 9 (day one of the HAC).
- k. With the exception of the RSTA insert and range sweep, no over flight of the training areas will be conducted in support of the HAC until 90 minutes prior to L-Hour. Artillery, mortars, other aviation, and direct fire in support of the MAC are active in the training areas prior to this time.
- l. During the extract of the helicopterborne force on CAX day 10 (day two of the HAC), no aircraft may overfly the Delta Training Area as it will be in a hot status in preparation for the afternoon MAC.
- m. Helicopter operations in the hot and high CAX environment require thorough ORM analysis and the implementation of appropriate control measures for all phases of the HAC. Air Mission Commanders (AMCs), flight leaders and planners need to pay particular attention to PZ selection, HWSAT planning, objective area selection of landing sites and landing points, and egress/wave-off avenues. AMCs and flight leaders are encouraged to maximize the training opportunities provided in the HAC while operating within safe parameters.

7. ASSAULT HELICOPTER DOOR GUNNERY

- a. Door gunnery will be conducted along the route for each wave during the insert on day one. The HAC door gunnery range will be used to accomplish this training objective.
- b. The HAC door gunnery range is located in the Delta training area. The range boundaries are delineated by the following grids; NU 850095, NU 870095, NU 850120 and NU 870120. R/W control point COLUMBUS, at grid NU 868081, is located immediately to the South of the range.
- c. There are eleven (11) targets in the range complex; eight (8) tire stacks which simulate enemy trucks and three (3) trench lines with bunkers and simulated machine gun emplacements. Gunners must have positive identification of targets to engage. Target locations are as follows;

Vehicle Size Tire Stack
Vehicle Size Tire Stack
Vehicle Size Tire Stack
Vehicle Size Tire Stack
Trench line/ Bunker Complex
Trench line/ Bunker Complex
Trench line/ Bunker Complex with Vehicle Size Tire Stack
Large Vehicle Size Tire Stack
2 Vehicle Size Tire Stacks
Vehicle Size Tire Stack
Vehicle Size Tire Stack

d. **NFA** locations in the vicinity of the course are as follows:

NU842031 OP Crampton NU919093 Road guard Post 2

e. Approach the range from the South/Southeast (vicinity of COLUMBUS). Remain at 300' AGL and below throughout the range. The range will be transited from South to North, one pass for each wave, with

- 330⁰ Magnetic from COLUMBUS being a recommended heading.
- f. Right door gunnery must remain between 005 and 035 degrees magnetic. Left door gunnery must remain between 230 and 290 degrees magnetic. Firing outside these azimuths places adjacent NFAs inside the surface danger zone of the door guns.
 - g. Door gunnery will only be conducted during the insert waves on CAX day 9 (day one of the HAC).
 - h. Enclosure (4) provides an overlay of the door gunnery area.
- 8. **BATTLE DRILL DURING AIR MOVEMENT.** During ingress, the helicopterborne force will initiate the appropriate response to one or multiple threats located in the helicopterborne battle drill area.
- a. The enroute threat will consist of SA-7/14/16 SAM(s), 30 mm/14.5mm AAA, or both. Actual smokey SAMs and HOFMANs will simulate enemy fire. The threat will consist of tire stacks (the aim points for escort fires) located in the vicinity of the Noble "T" at NU787168. The first insert wave (only) is required to pass this position from the south-southeast during ingress.
- b. Immediate action is required by the helicopterborne force to counter the effects of the threat. The response could include, but is not limited to, aircraft evasive action, execution of a scatter plan, selection of an alternate route, engagement of the threat by escort aircraft, etc..
- c. Aircraft firing headings will be kept between 325-090 degrees magnetic and should be oriented toward the observed HOFMAN devices and Smokey SAM's. NO DEVIATION WILL BE ALLOWED DUE TO THE PROXIMITY OF FRIENDLY LOCATIONS IN THE MORGAN'S WELL AREA. Authorized ordnance is 2.75"/5.00" Rockets and 7.62mm/.50 cal/20mm guns. UH-1N door guns must be fired in the fixed forward position. DOOR GUNS FROM CH-46/53'S ARE PROHIBITED.
- d. An air Coyote in the vicinity of NU 772162 will monitor the pre-coordinated frequency used by the escort aircraft as well as the mission common frequency.
 - e. Enclosure (5) provides an overlay of the battle drill area.
- 9. **WITHDRAWAL UNDER PRERSSURE**. A withdrawal under pressure will be conducted during the HAC. The withdrawal will be conducted on order of the CTF commander during execution of the defensive mission. A S-2 Coyote in the supporting COC will issue this order on behalf of the CTF commander.

HELICOPTERBORNE OPERATIONS PLANNING INFORMATION

Planning

"Both the helicopter and helicopterborne unit commanders are responsible for the conduct of detailed, coordinated planning and efficient employment of their respective forces in order to successfully execute the veritical envelopment/helicopterborne assault operation. **The assignment of a liaison operations team by the helicopter unit to the supported unit will ensure optimum air response and coordination.**"

NWP 3-22.5-AH-1, 6.9.1, Vol 1

"The five basic plans that comprise the reverse planning sequence are:

- Ground Tactical Plan
- Landing Plan
- Air Movement Plan
- Loading Plan
- Staging Plan

"The ground concept of operations is formulated in five parts:

- Ground movement to the PZ
- Securing and organizing the PZ
- Actions at and securing of the LZ
- Ground movement from the LZ to the objective or actions on the objective if the force is landed directly on the objective.
 - Operations subsequent to securing the objective."

"Provisions for emergency extract, resupply and medical evacuation by air must be planned for in advance."

"It is the Mission Commander's responsibility to make initial liaison with the HUC." FMFM 6-21 3301d

Use of Single and Multiple LZs

"The advantages of a single LZ are as follows:

- allows concentration of combat power in one location (if LZ is large enough).
- facilitates control of the operation.
- Concentrates supporting arms in and around the LZ. Firepower is diffused if more than one LZ preparation is required.
 - Provides better security for subsequent lifts.
 - Requires fewer attack helicopters for security.
- Reduces the number of flight routes in the objective area, making it more difficult for enemy intelligence sources to detect the helicopterborne operation.
 - Centralizes any required resupply operations.
 - Concentrates efforts of limited LZ control personnel and engineers on one LZ.
 - Requires less planning and rehearsal time."

"The advantages of multiple LZs are as follows:

- Avoids grouping assets in one location and creating a lucrative target for enemy indirect fires and CAS.
 - Allows rapid dispersal of ground elements to accomplish tasks in separate areas.
 - Reduces the enemy's ability to detect and react to the initial lift.

- Forces the enemy to fight in more than one direction.
- Reduces the possibility of troop congestion in one LZ.
- Eliminates aircraft congestion on one LZ.
- Makes it difficult for the enemy to determine the size of the helicopterborne force and the exact location of supporting weapons." FMFM 6-21 3304b(1-2)

Load Planning

"**Tactical integrity** - fire teams and squads are loaded intact on the same aircraft and platoons in the same wave. This insures integrity as a fighting unit upon landing. The commanders goal is to load his unit so that unit integrity is maintained at every level."

"Composite first wave - an exception to maintaining tactical integrity of units. The composite first wave facilitates the seizure of the objective LZ and the landing of subsequent waves into the LZ area. Establishing a composite first wave enables the commander to task organize the initial landing with varying elements from subordinate units of the tactical force. This option may facilitate securing the objective LZ by eliminating the need to move troops on the ground as subsequent waves land. For example, a platoon is task organized with one reinforced squad from each rifle platoon. Each squad flies into the objective LZ in the first wave. Upon landing, the squads disembark and move to locations where their platoons will establish positions. Subsequent waves consist of the remainder of the three rifle platoons. The rifle platoons fly into the LZ in flight which are organized as normal. If the objective LZ were secured by one integral platoon, troops would be required to move from their initial positions to their ultimate platoon positions as follow-on waves arrived in the objective LZ. In some tactical situations, this may be the preferred method. However, this method creates confusion at the objective and causes additional exposure from movement.

- self-sufficiency of loads. Each unit load should be functional by itself (whenever possible).
- Every towed item is accompanied by its prime mover.
- Crews are loaded with their vehicle or weapon.
- Component parts with major items of equipment.
- Ammunition is carried with the weapon.
- Sufficient personnel are on board to unload cargo.
- Communication between flights, if possible without radios.
- Tactical cross-loading. Loads should be planned so that all leaders, or all crewserved weapons, are not loaded on the same aircraft. Thus, if an aircraft is lost, the mission is not seriously hampered. For example, loading the platoon commander, platoon sergeant, and all squad leaders on the same helicopter, or loading more than one machine gun team on the same aircraft, are violations of cross-loading.

Another consideration is to determine whether internal or external loading is the best delivery method for equipment and supplies. Internally loaded helicopters fly faster and are more maneuverable. Externally loaded helicopters fly slower and are less maneuverable; however, they can loaded and unloaded more rapidly than internally loaded helicopter. Availability of sling and rigging equipment must be considered."

FMFM 6-213306g(5)

The final aspect of the load planning is the development of the HWSAT. The HWSAT is the end result of the load planning phase. The AMC and HUC need to ensure the published load plan and assigned stick weights are adhered to. Aircraft commanders must be cognizant of established go/no go power margins identified during pre-mission planning.

Command and Control

"Command and control requirements must be addressed early in the planning phase in order to be able to direct diverse and widely dispersed air and ground elements between the initial PZ and the final objective. The C2 system may be subjected to degraded communications due to the extended distances and/or jamming and therefore should be developed so as to allow execution despite degraded radio communications."

FMFM 6-21 2005

"Ensure that the S6 has sufficient time to plan for radio retransmission. The insertion of the Retrans Team should support one or two of the commander's communications requirements (TAC or COF). If the helicopterborne unit chops from the battalion to the MAGTF, coordination is required to ensure that the proper frequencies/net IDs are used. If at all possible, the MC and key players should CommEx the C&C helicopter." TTECG CAX Observations

Redundancy in communications should be planned for as well as the use of alternate communication paths. Airborne communication relay as well as ground retrans should be considered. Use of long range antennas and HF radios with directional antennas will also assist in maintaining communications.

TTECG CAS OBSERVATIONS

Command Structure.

"The principle of unity of command is critical in helicopterborne operations. The widely seperated locations of the ACE/GCE/CSSE cause planning and <u>execution</u> in a vacuum unless a single commander is designated (mission commander) to whom the AMC and HUC are responsible. The MAGTF commander assigns forces to the mission commander to establish a helicopterborne task force which is task organized to accomplish the mission. In addition to ACE, GCE, and, CSSE assets appropriate to accomplishing the mission, the task force must be allocated sufficient communications, intelligence, and planning support assets to integrate the force, plan the mission, and execute the mission.

Command and Control Helicopters.

"A C&C helicopter is used by the GCE to observe the LZs and change them if necessary, to observe the initial waves landing and to coordinate and influence the attack of subordinate units in the LZ. In a large helicopterborne operation with multiple LZs, subordinate commanders may require C2 helicopters to control and coordinate their units. As a rule of thumb, the ground commander commands airborne only during air movement and the initial stages of the landing. When a major portion of his assault elements have landed, the commander should displace to a forward command post (CP) on the ground. The commander should guard against trying to routinely control ground operations from the air, which can lead to over supervision of subordinate units and can sometimes give an inaccurate picture of the true tactical situation. The commander is vulnerable to enemy air defense weapons while airborne."

"The C&C aircraft must...closely follow assigned routing and hold in preplanned holding areas (MCAs) in order to minimize the interruption of fires or deconfliction problems with other aircraft and fire-support assets."

NWP 55-9-UH1 12.11

"The MCA is an airspace coordination area (formal or informal) that must be deconflicted with other flights, fire-support, and air control assets. The MCA must be offset from approach and retirement routing, forward arming and refueling points, gun-target lines, and landing zones/objective areas."

NWP 55-9-UH1 12.11

"The C&C pilot must be prepared to assume the communications and coordination duties...the crew must prepare as though they were responsible for entire mission (**plan as though you are the mission commander**)."

NWP 55-9-UH1 12.12

"Tactical employment of the C&C aircraft is driven by two primary considerations...*first*, selection of a location for the aircraft that ensures that communications can be maintained and a position that provides an adequate view of the battlefield and *second*, survivability of the aircraft. Some commanders insist on loitering high over the battlefield with little regard for the enemy situation or threat weapon capabilities. This technique may work if the threat is limited to small-caliber weapons. Since this is rarely the case, the crew must **plan on employing a combination of low-altitude flight, terrain masking, and smart positioning** of the aircraft in order to provide the necessary communications link, view of the battlefield, and self-protection."

NWP 55-9-UH1 12.9

"Utilize radio relay as an alternate means of communication whenever possible. Continuously seek **alternate communication paths** whenever communications are degraded."

NWP 55-9-UH1 12.92

Deception

"Tactical deception in support of a helicopterborne mission should be employed at every opportunity and the **deception planning should be conducted concurrently with mission planning**."

"Deceptive activity (such as the use of fake LZs and landings, high-altitude activity by fixed-wing aircraft to mask terrain flying penetrations by helicopter, turn-away maneuvers during which a portion of the flight obviously turns back while the remainder descends and continues to the objective below the terrain mask, supporting arms attacks, and assault feints) is an example of innovative planning that can provide surprise and contribute to mission success."

FMFM 6-21 6.9.4 paragraph 3 & NWP 3-22.5-AH-1 6.9.4 Vol 1

"The S-2 estimate...should identify any weaknesses or capabilities of the enemy that may be exploited through deception."

"What type of deception should be employed so that the enemy will see (or hear) it?"

"The enemy must be able to respond. The enemy's ability to respond in a manner to the deception is a key factor. If he falls for the deception, will he have time to respond in the manner planned? Conversely, if he should see through the deception, will he be unable to respond fast enough to alter or influence the outcome?"

"How is the enemy likely to react? The plan must consider his possible reactions based on his technology, capabilities, force availability, character, and doctrine."

"Once the opportunity for deception has been identified in the mission analysis, two key elements must be identified in order to develop a deception plan. First, what is the goal or end result of the deception (the deception objective)? The second element to identify is the deception target. This is the individual to whom the deception is aimed...who is capable of seeing or learning of the deception and in a position to respond in the manner intended."

"The following criteria should be utilized to develop the deception plan:

- Time is a critical factor. Enough time is needed to convincingly develop and execute the plan. Additionally, the enemy must have adequate time to see and react.
- The plan must be realistic and plausible. The deception must be appropriate to situation. It is futile to try and get the enemy to respond in a manner in which he is incapable.
- Is the plan causative? Will it cause the desired reaction on the enemy's part? It must be tailored to cause him to react in the manner that most benefits the plan.
- The planning should be centralized and coordinated. The GCE and the ACE cannot afford to plan their deceptions independently. A good deception plan enables the ACE to do more than support the GCE's scheme of maneuver; it enables the ACE to appear to be a maneuver element or actually operate as one."

 The TALON/Summer 1993 Tactical Deception and Helicopter Operations

Fire Support Planning and Coordination

"Integrated fire support can result only when the FSC is an aggressive contributor to the commander's planning sequence and decision-making process." To facilitate fire planning, company commanders attend operation order briefings.

FMFM 6-21 5302c

"The fire support plan should include:

- a detailed concept of how fires will support the operation from the initial PZ to the final objective.
 - a target list that includes locations where fires are expected or likely to be used.
- a priority of fires telling which element receives fire in case of conflict (for example, priority of artillery fires to first platoon and mortar fires to second platoon).

- an allocation of priority targets to indirect fire assets.
- informal ACAs
- Coordination measures for providing troop safety and promoting synchronization of supporting fires."

FMFM 5302d(3)

"Fire support planning must provide for suppressive fires along flight routes and in the vicinity of landing zones. Priority for fires must be to the suppression of enemy air defense (SEAD) systems." FMFM 6-21 1008b(7)

"SEAD may be executed either as scheduled fires based on a specific time schedule, or SEAD may be fired on call based on the movement of the helicopterborne force through predetermined lanes or across predetermined phase lines."

"The FSC ensures that all flight routes and suspected enemy ADA sites are targeted with preplanned fires. The FSC is normally located with the commander requires a dedicated fire direction net; he will control the lifting and/or shifting of SEAD fires as directed by the commander."

FMFM 6-21 5302h

"The plan for supporting fires must support the scheme of maneuver and should provide for suppression of enemy air defenses during the helicopter approach and retirement, preparation LZ, fires in support of the consolidation of the LZ, and fires in support of the ground operation."

FMFM 6-21 3202b

"The FSC ensures that the plan developed remains supportable. The FSC must immediately inform the commander or the S-3 if there is not enough fire support allocated make the plan work or if changes are necessary to the plan. To do this, he must be forward with the command group during the conduct of the helicopter operation. He normally flies with the commander when a C2 helicopter is used."

To Prep Or Not To Prep.

"LZ preparations may be fired in support of a helicopterborne assault. Preparations are directed against known, suspected or likely enemy positions dominating the LZ or on the zone itself."

FMFM 6-21 5301b(2)

"Frequently, it is desirable to make the initial assault without preparatory fires in order to achieve tactical surprise. However, preparatory fires are planned for each LZ so that they can be fired if needed. Planned fires for helicopterborne operations should be intense and short, but with a high volume of fire to maximize surprise and shock effect. The fires should end just before the first assault element's landing (*if the prep is on suspected or known positions within close proximity to the LZ, depending on the distance from the LZ, it may be desirable for these fires to continue during insert into the LZ and covering the retirement of the assault support aircraft until clear of the suspected threat.)* When developing fire support plans, consideration is given to the following:

- (1) Deception. False preparations are fired into areas other than the objective or LZ.
- (2) Loss of Surprise. A preparation of long duration may reduce the possibility of surprise. Will the effects of the preparation justify the loss of tactical surprise and afford the enemy sufficient time to change his tactical disposition?
- (3) Allocation of Fire Support. Based on the allocation of fire support and the commander's guidance, the FSC conducts fire support planning to support the landing.
 - (4) Significant Targets. A known or suspected enemy force, regardless of size, warrants target planning.
- (5) Obstacles to Landing and Maneuver. Some ordnance used in preparation (artillery, bombs, napalm) can cause craters, tree blowdown, fires, and LZ obscuration and therefore may not be desirable. Fire support on the LZ can be planned to detonate mines or booby traps or to reduce obstacles also.
- (6) Scheduled Fires. Fires are scheduled to be lifted or shifted to coincide with the arrival times of aircraft formations.
- (7) Control measures must be established for lifting or shifting fires. Airspace coordination areas (ACAs) may be necessary to protect approach and retirement lanes." *Gun-target lines and helicopter*

approach/retirement lanes may need to be deconflicted depending on proximity of fires to lanes and the ordinate of the artillery rounds. Stay below altitudes may suffice for deconfliction.

FMFM 6-21 3304d

"The suppression of enemy air defense weapons during the approach and retirement of helicopters is fundamental to success and survival."

FMFM 6-21 5301b(4)

Supporting Fires Along the Approach and Retirement Route.

- (1) Fires along the flight route are planned to suppress known or suspected enemy positions. These fires should be of short duration. Multiple target engagement techniques should be utilized (groups, series).
- (2) Fire plans cover the PZs, flight routes, and LZs. Fire support plans include suppression of enemy air defense systems and smoke to protect formations from enemy detection. This requires aggressive fire planning by the FSC and direct coordination with supporting units.
 - (3) All available fire support is used to suppress and/or destroy enemy weapons.
- (4) Support may consist of smoke or other countermeasures for suppressing or confusing enemy air defense systems.
- (5) On-call fires are planned along the flight route to ensure rapid adjustment of targets of opportunity.
- (6) During night operations, the use of illumination fire requires detailed planning. Illumination can interfere with NVGs and cause unsafe conditions." FMFM 6-21 3305c

"During withdrawal (*extract at completion of a raid operation or a deliberate extract at completion of helicopterborne assault*) fire support is planned and executed to protect security elements as combat power on the PZ diminishes."

FMFM 6-21 4107g(5)

Fire Support for Linkup Operations

"Fire support coordination measures are established and disseminated to both forces by the headquarters ordering the linkup. A restrictive fire line (RFL) is normally established on identifiable terrain as close as possible to the stationary force. The RFL prohibits the fires and the effects of fires from extending across the line without coordination with the affected force. Each force must be prepared to support the other as the situation dictates. Upon linkup or at some prearranged time, control of supporting fire becomes the responsibility of the commander previously designated to have overall responsibility for the operation. Since the maneuvering unit is normally larger and has more supporting weapons and more reliable supply lines than the stationary helicopterborne force, the maneuvering unit can provide more support than the stationary unit. However, the stationary unit, since it is already in position, can provide some support to the maneuvering unit. Such support is limited by the amount of ammunition and the number and type of weapons assigned to the stationary unit."

FMFM 6-21 4306a(7)

"CAS preplanned mission should be used to the maximum extent possible. CAS aircraft can be used to screen approach and retirement lanes."

Changing LZs, Approach and Retirement Routes, and Aborting/Delaying the Mission

"Operation plans, operation orders, and mission orders must clearly set authority to change LZs, routes, or abort a mission." NWP 55-9-UH1 12.7

"When the use of either LZ will not affect the scheme of maneuver or plan of supporting fire of adjacent or higher troop units, the HUC in coordination with the AMC or TFL may be delegated the authority to change from the primary zone to the alternate zone(s) to exploit a tactical advantage or to improve a ground situation.

If the use of any selected zone will affect adjacent or higher level troop units, this authority cannot by delegated below the highest level troop unit affected, or that level which is able to effect the necessary coordination."

Changes to FMFM 6-21 submitted by MAWTS-1 "If changing LZs affects the fire-support plan, authority cannot be delegated below the SACC/FSCC. Where a change in LZ involves complex coordination, the decision must be made at the ATF/MAGTF level." NWP 55-9-UH1 12.7

"The MAGTF commander may delegate the authority to divert from primary to alternate LZs to the AMC when the HUC and the AMC agree. The MAGTF commander will not delegate authority to divert to alternate LZs when the HUC and AMC do not agree. When the HUC and AMC do not agree, they will relay their recommendations to the MAGTF commander who makes the final decision, If they are unable to communicate with the MAGTF commander, the decision rests with the HUC. The AMC or HUC does not have the authority to change LZs if the change affects adjacent or higher units." NWP 55-9-UHI 12.7

"When the fire-support plan allows the primary and alternate routes to be ACAs (even when not in use), the AMC may be given the authority to shift routes. The AMC may change routes if it will not affect the scheme of maneuver, the fire-support plan, or adjacent or higher units. If changing routes affects adjacent or higher units, this authority cannot be delegated below the highest level unit affected. If changing routes affects the fire-support plan, the authority cannot be delegated below the SACC/FSCC. If changing routes requires establishing an ACA, then the authority to change routes cannot be delegated below the ATF/MAGTF level."

"Authority to abort/delay a helicopterborne assault mission rests with the MAGTF commander. If the HUC or AMC feel the mission must be aborte/delayed, they communicate their recommendation to the MAGTF commander. Whenever possible the MAGTF commander should decentralize control (abort/delay authority) to the HUC and/or the AMC to improve flexibility. The MAGTF commander provides guidance about mission abort/delay decisions." NWP 55-9-UH1 12.7

"For all other helicopter operations (logistics support, liaison, and patrol insertion) the AMC or flight leader, makes on-site decisions regarding abort/delay or diversion from the primary LZ. The AMC makes these decisions after conferring with the ground unit commander. When there is not agreement between the ground unit commander and the AMC, they forward their recommendations to the MAGTF commander."

NWP 55-9-UH1 12.7

Withdrawal by Air

"Withdrawal from an area of operation requires thorough planning, close coordination, and controlled execution. The following are considered important for any withdrawal by air:

- Primary and alternate PZs and flight routes must be planned.
- Defensive concentrations must be planned around the PZ. The security force will protect the loading force and return fire if engaged. When the last elements are ready to load, the security force will call in required fires to cover withdrawal and use their own fire to cover their loading.
- Maintain all around security until the first helicopter is on the ground (never assemble too early).
- Plan the loads so that a force capable of defending itself constitutes the last lift (never leave less than a platoon size force). Platoon leader or sergeant, or squad leader, with radio will be the last man out of a PZ. He will report to his commander that the PZ is clear of all personnel and equipment and immediately notify the pilot of the helicopter he boards. Plan for at least two extra helicopters to go into the PZ to lift out the last unit, when possible.
 - The attack helicopter unit will be in direct communication with the HUC.
- Displacement of the CP and use of the Command and Control helicopter must be carefully coordinated. FMFM 6-21 App B 4e(1)

Emergency Extract

"The emergency extract may best be thought of in terms of what the helicopterborne infantry force expects the ACE to do if the enemy forces have overwhelming combat power...it may be a surge of CAS..., maneuver of another infantry unit into a nearby LZ or it may be emergency extraction. What is key...is to understand that an emergency extract may not be possible, especially if the infantry has suffered casualties, or if the enemy forces possess greater mobility. The risks involved with the helicopterborne assault may be such that the emergency extract is not warranted, even in the face of superior enemy forces, due to the reliance of other units on the disruptive actions caused by a helicopterborne assault."

Changes to FMFM 6-21 submitted by MAWTS-1

"Once the decision has been made to conduct an emergency extract, suppressive fires must be immediately brought to bear against the enemy forces. These fires will enable the infantry to break contact, move to a pick up zone, and will cover the extraction. The excort/CAP aircraft will move into position to provide suppressive fires. The ground unit will break contact and move to a secure PZ. On call assault transport aircraft will land to extract the infantry. Consideration should be given to landing all aircraft as one wave, threat permitting, to expedite the extract."

Changes to FMFM 6-21 submitted by MAWTS-1

The duration of suppressive fires must take into account the delays associated with an emergency extract. Troops will more than likely not be assembled in sticks or organized on the ground in a manner that will necessarily expedite the onload. Troops may have greater distances to travel to get to the aircraft than anticipated. The time required to carry or assist casualties to the aircraft will further delay aircraft on the deck. It is often easier to shut down suppressive fires as the aircraft are departing the pickup zone than it is to turn them back on as the helicopters are still sitting on the deck.

TTECG CAX Observations

"Weapons conditions must be thoroughly understood by all participants as the confusion inherent in this operation, especially at night, can easily lead to friendly engagements. At night some visual means of identification to distinguish between friend and foe must established and

briefed to aid the transport gunners in this task."

Changes to FMFM 6-21 submitted by MAWTS-1

"The signal to execute the emergency extract will normally be given via radio communications. An alternate signal must be briefed. Commanders must be careful to ensure that the signal is distinct from those already in use by the ground unit. The signal must be also be recognizable by aircrew operating with night vision devices."

Changes to FMFM 6-21 submitted by MAWTS-1

Escort

"The escort plan should be built from the inside out based on the concept that any potential threat will be acquired and destroyed, neutralized, or suppressed before that threat is able to attack the escorted package. Only those threats that have the potential to influence the

package should be engaged, thereby reducing the possibility of the escorts being drawn off and thus separated from their primary mission of package protection. If there is a threat, ideally it would be acquired and engaged at the outer limits of each escorts's weapons engagement zone cascading to reactive, in close response only if required."

NWP 3-22.5-AH-1 12.1 Vol 1

"Because of the nature of the threat, engagements tend to be reactive in nature. They require quick response; target acquisition, identification, and engagement. During attached escort, response time is minimized within 1 minute. In preflight planning, areas where more than 1 minute response time will occur must be identified and solved. Utilization of other supporting arms may aid in solving this problem...The location of the helicopters in relation to the threat must be considered when fixed-wing escorts utilize frag ordnance or fuel air explosives. The use of air-to-ground guns in close proximity to friendly helicopters is

preferred because of the lower residual effects from frags." (*See caution below concerning Angle P and Distance X delineations of surface danger zones for air-to-ground guns*)

NWP 3-22.5-AH-1 12.3.3 Vol 1

The normal dispersion pattern for 7.62, .50 cal. and 20mm is 5 degrees on either side of the weapon-target line. Additionally, the ricochette angle (Angle P) must be added to the dispersion angle to fully appreciate the surface danger zone of these weapon systems. Distance X delineates the maximum range of the weapon system.

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7.62 Distance X 4100m Angle P 49 degrees (includes dispersion pattern angle) .50 cal. Distance X 6500m Angle P 46 degrees (includes dispersion pattern angle) 20 mm Distance X 4238m Angle P 44 degrees (includes dispersion pattern angle)
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Because of the Surface Danger Zone considerations, assault support door gunners are authorized to fire <u>only</u> on the door gunnery range of the Helicopter Assault Course. Door gunners are not allowed to fire during any other portion of the Helicopter Assault Course. Transiting of the door gunnery range and engagement of designated targets within the range during each inbound leg of the Helicopter Assault Course is authorized.

AR 385 and CAX Safety Handbook

"As the assault aircraft prepare to land, LZ suppression by escorts will shift away from the zone (distance dependent on the type of munitions) towards surrounding areas that provide the best cover for the enemy. During this critical period when escort fire support shifts away, assault gunners become responsible for LZ suppression. Planners must integrate those transport gunner fires into the overall landing zone fire support plan.

NWP 3-22.5-AH-1 12.2.3

Pickup Zones

"Air Mission Commanders must inform the PZCO about any changes to the number, type, and carrying capability of the aircraft enroute to the pickup zone. The PZCO must have time to reorganize sticks and institute the bump plan prior to the arrival of assault transport helicopters in the PZ."

Changes to FMFM 6-21 submitted by MAWTS-1

Night Considerations

"All infantrymen inserted in a night helicopterborne assault must be aware of the effects that their weapons systems and signal devices will have on NVD equipped aircrew. Illumination rounds from artillery, mortars, and hand held signaling devices can severely interfere with the aircrew's ability to maneuver their aircraft. Ground commanders must ensure that restrictions on the employment of such weapons and devices are passed down to all members of their command." Changes to FMFM 6-21 submitted by MAWTS-1

Air Evacuation Location

"An air evacuation location is designated, normally at the approach end of the LZ. This permits continuation of the lift and prompt evacuation of the wounded."

FMFM 6-21 7108e

Intelligence

"Accurate and timely intelligence--knowledge of the enemy and the surrounding environment-- is a prerequisite for success in war." $_{\rm MCDP\,2}$

"Intelligence operations must support the commanders intent and scheme of maneuver. Intelligence

operations must be coordinated and understood by all intelligence sections (MAGTF, GCE, ACE) involved in a helicopterborne assault. Due to the detailed nature of helicopterborne operations, intelligence support should be focused on satisfying the commander's priority intelligence requirements (PIRs) with a viable, flexible, survivable, and robust intelligence collection plan. All available MAGTF intelligence assets, augmented by national/theater intelligence support, should be planned for, requested, and employed to support the mission. Timely receipt of information is critical, and *dissemination* of enemy information *to whomever requires it the most* is essential to the success of the mission. "

TTECG Intelligence Section Observations

"... we can enhance **tempo** through effective *information management--* taking advantage of all available communication channels and means for disseminating intelligence. Intelligence, like any other information product, flows not only through established hierarchical channels but also by alarm channels, flowing laterally and diagonally as well as vertically. In other words, rather than simply forwarding information or intelligence via standard channels, we must ask ourselves, "Who really needs this information most?" and transmit that information by the *most direct* and *readily accessible* means."

MCDP 2

To illustrate this point, a reconnaissance, surveillance and target acquisition (RSTA) team may have occupied a hidesite 48 hours prior to L-Hour, reporting on enemy activity within assigned named areas of interest (NAIs) to the MAGTF intelligence section. As the helicopterborne assault package departs the pickup zone (PUZ) enroute to the helicopter landing zones (HLZs) in the vicinity of the objective, the RSTA teams observe enemy personnel manning employing man portable air defense (MANPAD) weapons in their fighting positions. The RSTA team, with a plan to contact the escort flight leader, alerts the escort aircraft of the new threat. The escort aircraft take action and destroy the threat prior to the transport waves reaching the HLZs. The RSTA teams knew "who really needed this information the most" and they had a plan to communicate critical information concerning the enemy.

TTECG Intelligence Section Observations

Focused Intelligence Support

"Intelligence must be integrated with the concept of operations and focused on the main effort. The MAGTF intelligence structure has the flexibility to tailor its capabilities to meet the requirements of various types of expeditionary operations, as well as to adapt to changing intelligence needs during the execution of an operation

Intelligence Nodes

. . . The MAGTF can create a series of nodes, providing enhanced intelligence support to specific units or areas based on the tactical situation. In his intelligence support concept, the MAGTF S-2, in conjunction with MSC intelligence officers, task organizes the MAGTF's intelligence support units and employs intelligence direct support teams to establish the required intelligence capabilities at key points and times."

FMFM 3-20 (Intelligence)

For example, during the planning phase of a helicopterborne assault, the MAGTF S-2 identifies the requirement for a detailed study of the terrain to support PZ operations, HLZ operations, and the terrain within the area of operations. A node consisting of topographic and imagery interpretation assets combine under the guidance of the MAGTF S-2 to develop terrain and imagery products that support the concept of operations. National level imagery assets are tasked to provide imagery intelligence (IMINT) of selected targets within the area of operations, based on the MAGTF battlestaff's intelligence preparation of the battlefield (IPB) process. Likewise, the MAGTF S-2 determines a requirement for signals intelligence/electronic warfare (SIGINT/EW) support based upon known OPFOR capabilities. He tasks the radio battalion detachment to collect and identify key OPFOR command and control nodes to determine OPFOR hostile intent to the helicopterborne force. He also coordinates electronic intelligence (ELINT) collection missions with the ACE S2 to identify OPFOR high value targets (HVTs), such as air defense assets (ADA), which can be targeted by MAGTF assets to support the helicopterborne force. If unmanned aerial vehicles (UAV) support is available, the MAGTF S-2 is able to

support the concept of operations by providing route reconnaissance for the helicopterborne force, as well as identification of high payoff targets (HPTs). Additionally, the MAGTF S-2, in concert with the MAGTF reconnaissance and surveillance (RSTA) officer, develops a ground RSTA plan to provide reconnaissance and reporting of helicopterborne objectives prior to L-Hour. Finally, the MAGTF S-2 MUST ensure the information flow is understood by all intelligence collection assets to satisfy the need of "who really needs this information the most." An effective method of ensuring this information is collected and disseminated to the helicopterborne task force is through the use of attached intelligence support teams or liaison officers assigned to the force. The bottom line is to build a collection plan that supports answering the commander's PIRs and supports the concept of operations.

TTECG Intelligence Section Observations

Copy no. __ of __ copies CTF MOJAVIA MOJAVIA 999999U Xxx 00 HAC

Frag Order 1-XX (HAC)

Ref: (a) Map: (1) V795S MARINE CORPS AIR GROUND COMBAT CENTER,

TWENTYNINE PALMS EAST, Sheet TWENTYNINE PALMS EAST,

3-DMA, 1:50,000

(2) V795S MARINE CORPS AIR GROUND COMBAT CENTER,

TWENTYNINE PALMS WEST, Sheet TWENTYNINE PALMS WEST,

3-DMA, 1:50,000

Time Zone: U

Task Organization: No change.

1. SITUATION

- a. General. See current Intsum.
- b. Enemy Forces. See current Intsum.
- c. Friendly Forces
 - (1) CinC X reinforces Mojavia with follow-on forces in order to reinstate the border between Mojavia and Samaran.
 - (2) There are no adjacent forces in theater.
 - (3) ArForX supports continued build up of forces at the port and airfield South of Twentynine Palms. On order, supports attack to reinstate Mojavian border.
 - (4) MarForX supports MAGTF operations ashore and build up of forces at the port and airfield South of Twentynine Palms. On order supports attack to reinstate Mojavian border.
 - (5) NavForX supports off load of forces at the port South of Twentynine Palms, MPF operations, fast sea lift of forces into theater, air defense operations ashore, and security of the seaborne approaches to the country of Mojavia.
 - (6) AirForX supports airfield operations and the build up of forces at the airfield South of Twentynine Palms, air operations in theater, and air transport of forces into the country.
 - (7) SOCX supports special operations in theater.

2. MISSION

At 999999U Xxx 00, CTF Mojavia defends the port and airfield South of Twentynine Palms in order to prevent enemy interference with the build up of forces in the Country of Mojavia. On order, CTF Mojavia attacks to seize CTF Objectives 1 and 2 in order to deny enemy resupply and reinforcement.

3. EXECUTION

a. Commander's Intent/Concept of Operations

(1) Commander's Intent. After successfully pushing Mojavian forces back to their present locations, Samaran forces have reached their culminating point in the in the Giant Rock, Gypsum, Delta, and Cleghorn avenues of approach into Twentynine Palms. Unseasonably heavy rains have rendered impassable numerous key Main Supply Routes (MSRs) frustrating Samaran reinforcement and resupply efforts. It is estimated these MSRs will remain impassable for the next 96 hours, at a minimum. I expect the Samarans to focus engineer effort on the MSRs leading into the Noble and Lava areas. Concurrently, I expect the Samarans to focus resupply effort on their forces in the Delta area. I also expect the Samarans to take advantage of the weakened Mojavian National Guard (MNG) forces defending the Delta by committing their reserve tank battalion to penetrate our defenses there. If the Samarans can resupply and reinforce their success in the Delta they will be able to break through our defenses along the Southern edge of the Bullion mountains, threaten the port and airfield South of Twentynine Palms, and impede our ability to introduce follow-on forces into the country. Defending the Delta, the 2nd Battalion, 1st Mojavian National Guard Brigade (2/1 MNG) has suffered the heaviest casualties of MNG forces: they do not have sufficient combat power to repulse another Samaran attack unless reinforced. This is our weakness. The Samarans however, will be forced to conduct resupply operations and maneuver their reserve through the channeling terrain of Noble pass. This is their weakness. We will exploit this weakness by blocking their resupply/reinforcement route long enough to reestablish our defenses along the Southern approaches of the Bullion mountains and attack North to seize the avenues of approach through the Bullion mountains. As heavy, follow-on forces arrive and become combat effective, we will continue our attack to reinstate the border. End state is the MSR is blocked before enemy resupply or counterattack, the Delta/Noble and Cleghorn/Lava avenues of approach are seized, link-up with the blocking force has been accomplished, and the build-up of follow-on forces at the port and airfield South of Twentynine Palms has continued unimpeded.

(2) Concept of Operations

(a) Maneuver

- (1) See Operations Overlay.
- (2) This operation will be conducted in two phases.
 - (a) Phase 1. One helicopterborne force (the main effort) conducts a deliberate attack to seize CTF Objective 1, three mechanized brigades defend in sector to prevent enemy interference with the build-up of follow-on forces in the port and airfield South of Twentynine Palms, and air forces interdict I-40 to deny resupply to enemy forces in the Bullion mountains.

- (b) Phase 2. One helicopterborne force blocks the Noble MSR in the objective area to prevent resupply or reinforcement of enemy forces in the Bullion mountains avenues of approach; two mechanized brigades defend in sector to prevent enemy interference with the build-up of follow-on forces in the port and airfield South of Twentynine Palms; one mechanized brigade (the main effort) attacks in zone to seize CTF Objective 2 and links-up with the helicopterborne force; air forces interdict enemy resupply efforts along I-40 and provide close air support.
- (b) <u>Fires</u>. Organic supporting arms will be employed by all forces. Excess aviation sorties will allocated to the MNG.
 - (1) <u>Artillery Support</u>. No General Support Reinforcing fires capability has arrived in country. As it arrives it will be allocated to the main effort.
 - (2) <u>Air Support</u>. Air forces provide CAP and deny enemy resupply/ reinforcement route from the Barstow area, along I-40, to the Bullion mountains. Remaining sorties are assigned to the MNG for CAS.
 - (3) Naval Surface Fire Support. Direct support of the MNG.
 - (4) <u>Planned Fires</u>. (Omitted)
 - (5) <u>Fire Support Coordination</u>. Per the Operations Overlay.
 - (6) Coordinating Instructions. (Omitted)

b. Tasks

(1) <u>3d ACR</u>. Continue build-up of forces in country in order to assume the attack to reinstate the Mojavia/Samaran border. Be prepared to reinforce the 1st MNG Brigade in the event of penetration of their defenses.

(2) MAGTF X

- (a) Phase 1: You are the main effort. Defend in sector in order to prevent the enemy from impeding the build-up of follow-on forces into the port and airfield South of Twentynine Palms. Conduct a deliberate helicopterborne attack to seize CTF Obj 1, NLT 1530, D-Day, in order to establish a blocking position along the Noble MSR.
- (b) Phase 2: Defend in sector in order to prevent the enemy from impeding the build-up of follow-on forces into the port and airfield South of Twentynine Palms. Block the enemy's resupply effort and reinforcement by battalion sized units and smaller along the Noble MSR long enough to allow rearming and reinforcement of the 2/1 MNG (approximately 18-24 hours). Be prepared to link-up with 2/1 MNG. Be prepared for withdrawal, on order of this headquarters, should the MNG only succeed in reestablishing their defenses.

- (3) 7th Fleet. Provide NSFS in DS of the MNG, air defense for the build-up of forces at the port and airfield South of Twentynine Palms, and security for the seaborne approaches to the Country of Mojavia. Excess naval aviation sorties are allocated to the MNG.
- (4) <u>53d Air Wing</u>. Provide CAP to maintain air superiority over Mojavia and Samaran. Interdict the enemy reinforcement/resupply line along I-40 in order to prevent additional forces and supplies from reaching the Bullion Mountains.
- (5) <u>JSOTF Mojavia</u>. Execute the intelligence collection plan; focus of effort is the identification and targeting of weapons of mass destruction.

(6) MNG

- (a) Phase 1: Reinforce defenses in the Delta area; defend in sector in order to prevent the enemy from impeding the build-up of follow-on forces into the port and airfield South of Twentynine Palms. Be prepared to attack North in the Delta/Noble, Cleghorn/Lava (Eastern) zone to destroy enemy forces and link-up with the helicopterborne force.
- (b) Phase 2: Defend in the Giant Rock (Western) sector in order to prevent the enemy from impeding the build-up of follow-on forces into the port and airfield South of Twentynine Palms. On order, assume the main effort, attack North in the Eastern zone to seize CTF Obj 2 and link-up with the helicopterborne force.

d. Coordinating Instructions

- (1) See operations overlay.
- (2) L-Hour is DD1230U MMM YY.
- (3) H-Hour is DD9999U MMM YY.
- (4) MOPP level 0 in effect.
- (5) Pick-up Zone for the helicopterborne force must be located in the East Training Area.
- (6) Insert RSTA Teams NET EENT Xxx 99; NLT BMNT Xxx99.
- (7) Be prepared for extract of the helicopterborne force if the MNG are only successful in reestablishing their defenses or can not effect link-up.
- (8) Helicopterborne force objective area. See operations overlay.
- (9) RSTA teams inserted by the MAGTF in support of the helicopterborne force must be coordinated with this headquarters.
- (10) All LZs for the helicopterborne force must be located inside the immediate objective area.
- (11) Link-up point for the helicopterborne force and the MNG is NU725265.

- (12) MNG/MAGTF coordinate link-up plan and signals. Brief this headquarters.
- (13) FSCL follows trace of I-40, 1000m South (I-40 is exclusive of the FSCL).
- (14) CFL number one: See operations overlay; effective immediately.
- (15) Coordinate all activities outside the Helicopterborne objective area or your assigned sector with headquarters.
- (16) Mission Precedence: MANDATORY.
- 4. <u>ADMINISTRATION AND LOGISTICS</u>. (Omitted).
- 5. COMMAND AND SIGNAL
 - a. Command Relationships. (Omitted)
 - b. <u>Signal</u>. See current CEOI.
 - c. Command Posts
 - (1) Main command element remains sea based aboard the USS Blue Ridge.
 - (2) Forward command element located at the airfield South of Twentynine Palms.

ACKNOWLEDGE RECEIPT

I. M. FLOATER Admiral, U. S. Navy Commander CTF Mojavia

